

WHAT IS CLAIMED IS:

*Sub 1*  
1. A subscriber unit for performing radio communication at a fixed location, comprising:

5 radio base station detecting means for detecting, in a continuous receive mode, radio base stations from which radio wave can be received;

area number recognizing means for recognizing an area number of radio base stations of which location  
10 registration is permitted;

radio base station extracting means for extracting radio base stations with said area number from among the detected radio base stations; and

synchronization control means for establishing  
15 synchronicity with a radio base station of highest reception level among the extracted radio base stations.

2. The subscriber unit according to claim 1, wherein said radio base station detecting means detects  
20 identification numbers of radio base stations from which radio wave can be received.

3. The subscriber unit according to claim 1, wherein said area number recognizing means makes a location  
25 registration request to the detected radio base stations, judges a radio base station denying the location registration request to be outside area, judges a radio base

station accepting the location registration request to be inside area, and recognizes an area number of the radio base station which has accepted the location registration request.

5           4. The subscriber unit according to claim 1, wherein said area number recognizing means stores the area number and identification numbers of radio base stations in a nonvolatile memory.

10           5. The subscriber unit according to claim 1, wherein, when mode is switched to the continuous receive mode after the recognition of the area number by said area number recognizing means, said radio base station extracting means extracts radio base stations with the already  
15 recognized area number from among radio base stations newly detected by said radio base station detecting means.

20           6. The subscriber unit according to claim 1, wherein said synchronization control means maintains synchroneity with a radio base station of highest reception level among the radio base stations detected by said radio base station detecting means before establishing synchroneity with the radio base station of which location registration is permitted and of which reception level is  
25 highest.

7. The subscriber unit according to claim 1,

further comprising timer control means for starting a timer when there exists no radio base station of which location registration is permitted.

5           8. The subscriber unit according to claim 7, wherein said synchronization control means maintains synchronicity with a radio base station of highest reception level among the detected radio base stations until the timer signals time-out.

10           9. The subscriber unit according to claim 1, further comprising area number change control means for controlling change of the area number recognized by said area number recognizing means upon recognition of change of  
15 the area number.

20           10. A radio base station recognition method which enables a subscriber unit for performing radio communication at a fixed location to recognize a radio base station, comprising:

detecting, in a continuous receive mode, radio base stations from which radio wave can be received;

recognizing an area number of radio base stations of which location registration is permitted;

25           extracting radio base stations with said area number from among the detected radio base stations; and

establishing synchronicity with a radio base

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station of highest reception level among the extracted radio  
base stations

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